This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended):   A method for automatically remotely issuing commands to a medical imaging workstation comprising the steps of:
        determining a change in a background of an image from a plurality of images;
        determining an object in the image
        identifying a gesture according to a trajectory of the object;
        determining if the gesture corresponds to a valid command; and
        if the gesture corresponds to a valid command, the workstation automatically executing the command resulting in translational and rotational manipulation of a medical device based on the command.

Claim 2 (Original):   The method of claim 1, wherein the step of determining the change in the background further comprises the steps of:
        determining a gradient intensity map for the background from a plurality of images;
        determining a gradient intensity map for the current image;
        determining, for a plurality of pixels, a difference between the gradient intensity map and the gradient intensity map for the background;
        determining a comparison between the difference and a threshold; and
        determining a pixel to be a background pixel according to the comparison.

Claim 3 (Original):   The method of claim 1, wherein the object includes a user's hand.

Claim 4 (Canceled).

Claim 5 (Canceled).

Claim 6 (Canceled).

Claim 7 (Canceled).

Claim 8 (Previously Presented):   The method of claim 1, wherein the step of identifying a gesture further comprises the steps of:
        determining a reference point;
        determining a correspondence between the trajectory and the reference point; and
        translating the trajectory according to one of a plurality of commands.

2

Claim 9 (Canceled).

Claim 10 (Canceled).

Claim 11 (Canceled).

Claim 12 (Canceled).

Claim 13 (Canceled).

Claim 14 (Canceled).

Claim 15 (Canceled).

Claim 16 (Canceled).

Claim 17 (Canceled).

Claim 18 (Currently Amended):   A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for automatically remotely issuing commands to a medical imaging workstation, the method steps comprising:
        determining a change in a background of an image from a plurality of images;
        determining an object in the image
        identifying a gesture according to a trajectory of the object;
        determining if the gesture corresponds to a valid command; and
        if the gesture corresponds to a valid command, the workstation automatically executing the command resulting in translational and rotational manipulation of a medical device based on the command.

Claim 19 (Original): The method of claim 18, wherein the step of determining the change in the background further comprises the steps of:
        determining a gradient intensity map for the background from a plurality of images;
        determining a gradient intensity map for the current image;
        determining, for a plurality of pixels, a difference between the gradient intensity map and the gradient intensity map for the background;
        determining a comparison between the difference and a threshold; and
        determining a pixel to be a background pixel according to the comparison.

Claim 20 (Original): The method of claim 18, wherein the object includes a user's hand.

Claim 21 (Cancelled).

Claim 22 (Canceled).

Claim 23 (Canceled).

Claim 24 (Canceled).

Claim 25 (Previously Presented): The method of claim 18, wherein the step of identifying a gesture further comprises the steps of:
determining a reference point;
determining a correspondence between the trajectory and the reference point; and
translating the trajectory according to one of a plurality of commands.

Claim 26 (Previously Presented): The method of claim 1 wherein the step of determining an object in the image further comprising the steps of:
obtaining a normalized color representation for a plurality of colors in each image;
determining from training images an estimate of a probability distribution of normalized color values for an object class; and
determining, for each pixel, a likelihood according to an estimated probability density of normalized color values for the object class.

Claim 27 (Previously Presented): The method of claim 1 wherein the step of executing the command further comprises the steps of:
determining the duration of the gesture; and
correlating the duration of the gesture to a intensity and scale in which the command is executed.

Claim 28 (Previously Presented): The method of claim 1 wherein the device is a virtual endoscope.

Claim 29 (Previously Presented): The method of claim 28 wherein the command corresponds to rotation of the virtual endoscope.

Claim 30 (Previously Presented): The method of claim 29 wherein the gesture is rotation of a user's hand.

Claim 31 (Previously Presented): The method of claim 28 wherein the command corresponds to moving the virtual endoscope in a right to left direction.

Claim 32 (Previously Presented): The method of claim 31 wherein the gesture is waving of a user's hand from right to left.

Claim 33 (Previously Presented): The method of claim 27 wherein repetition of a command increases the intensity of the corresponding command response.

Claim 34 (Previously Presented): The method of claim 18, wherein the step of determining the object in the image further comprises the steps of:

obtaining a normalized color representation for a plurality of colors in each image;

determining from training images an estimate of a probability distribution of normalized color values for an object class; and

determining, for each pixel, a likelihood according to an estimated probability density of normalized color values for the object class.

Claim 35 (Previously Presented): The method of claim 1, wherein the step of determining the trajectory of the object through the plurality of images further comprises the steps of:

determining, for each pixel, a temporal likelihood across a plurality of images; and

determining a plurality of moments according to the temporal likelihoods.

Claim 36 (Previously Presented): The method of claim 1 wherein the identified gesture is a valid command if it detects object pixels moving in a predefined pattern.